

## DT5472

### 1 Ch 500 V/1 mA USB-Powered Desktop HV Power Supply



## Features



- Single Desktop HV channel powered and controlled by USB
- 500 V / 1 mA output range
- Available with positive or negative polarity
- SHV output connector
- Low Ripple
- Under/over-voltage alert, overcurrent and max. voltage protection
- Interlock logic for board enable and Individual channel kill
- 20 nA Current monitor resolution (with x10 Imon Zoom: 2 nA)
- Software Tools for easy channel management

## Description

The CAEN **Mod. DT5472** is a desktop module housing one High Voltage Power Supply Channels **500 V / 1 mA**. The unit is available with either positive or negative output polarity; it is **supplied via USB link**. HV output is delivered through SHV connector. The HV output RAMP-UP and RAMP-DOWN rates may be selected independently for each channel in the  $1 \div 100$  V/s range with 1 V/s steps. The module features 200 nA Iset/Imon resolution. Zoom (x 10) for Imon increases resolution to 20 nA.

### SHV connector

Radial R317580 HV coaxial connector for Mod.DT5472

Consult our **connectors reference page** for technical information.

Functional parameters can be programmed and monitored via USB.

Safety features allows the module to perform as a current generator and includes:

<b>Channel</b>	can be enabled or disabled through the front panel manual switch or via Interlock logic.
<b>Overvoltage and Undervoltage warning</b>	warning when the output voltage differs from the programmed value.
<b>Overcurrent detection</b>	when a channel attempts to exceed the programmed current limit, it signaled to be in "overcurrent" and enter in a TRIP status. The output voltage is varied to keep the current below the programmed limit for a programmable TRIP time, then the channel is switched off. If TRIP is set to "constant current mode", the channel behaves like a current generator.
<b>Hardware VMAX</b>	maximum output voltage can be set via front panel potentiometer. VMAX value can be read out via software.

Software available (Windows):

- **LabVIEW Instrument Driver**
- **DT547x Control software** LabVIEW Control software with Logging Capability. DT547x Control software allows to set and monitor, through a Graphical User Interface, all the unit's functional parameters. When DT547x Control Software runs, it creates a data-log file that records the changes of the monitoring parameters.

## Technical Specifications

### Package

- Alloy box dimension: 81 W x 43 H x 127 L mm<sup>3</sup> (without connectors); 81 W x 43 H x 171 L mm<sup>3</sup> (including connectors)
- Weight: 280 g

### Polarity

0 ÷ 500 V

### Output Voltage

Positive / Negative depending on purchased version

### Max. Output Current

1 mA

### Voltage Set Resolution

100 mV

### Voltage Monitor Resolution

10 mV

### Current Set Resolution

200 nA

### Current Monitor Resolution

2nA (low range) / 20nA (high range)

### Current Set Maximum Value

1100 µA

### VMAX hardware

0 ÷ 510 V

### VMAX hardware resolution

1 V

### VMAX hardware accuracy

± 2% of FSR

### Ramp Up/Down

1 ÷ 100 Volt/sec, 1 Volt/sec step

### Temperature Resolution

1° C

**TRIP**

0-999s; 1000 = Infinite (current generator)

**Voltage Ripple**

<10 mV

**V<sub>mon</sub> vs. V<sub>out</sub> accuracy**

±0.05% of read ±1 V

**V<sub>set</sub> Vs. V<sub>out</sub> accuracy**

±0.05% of read ±1 V

**I<sub>mon</sub> vs. I<sub>out</sub> accuracy**

±1% of read ±400 nA

**I<sub>set</sub> vs. I<sub>out</sub> Accuracy**

±1% of read ±400 nA

**Humidity range**

0 ÷ 80%

**Operating temperature**

0 ÷ 45°C

**Storage temperature**

-10 ÷ +70°C

**V<sub>out</sub> / Temperature coefficient**

100 ppm

**I<sub>mon</sub> / Temperature coefficient**

100 ppm

**Long term stability V<sub>out</sub> vs. V<sub>set</sub>**

0,05% (after one week @ constant temperature)

## Ordering Options

Code	Description	
WDT5472XNAAA	DT5472N - USB High Voltage Power Supply -500V/1mA (1W max)	RoHS
WDT5472XPAAA	DT5472P - USB High Voltage Power Supply +500V/1mA (1W max)	RoHS

## Accessories

### HV CABLES



High Voltage Cable Assemblies

---

## Related Products

### LabVIEW Driver (PSM - Power Supply Modules)



LabVIEW Instrument Driver for Power Supply Modules

---



**This document, or parts thereof, may not be reproduced in any form or by any means without written permission from Caen S.p.A. Although every effort has been made to ensure the accuracy of information presented in this catalog, Caen S.p.A reserves the right to modify its products specifications without giving any notice; for up to date information please visit [www.caen.it](http://www.caen.it) © Caen S.p.A - 2024**

**CAEN S.p.A.**

Via Vetraia 11  
55049 - Viareggio  
Italy

**Phone +39.0584.388.398**

**Fax +39.0584.388.959**

**info@caen.it**

**www.caen.it**

**CAEN GmbH**

Brunnenweg 9  
64331 Weiterstadt, Germany

**Phone +49 (0)212.254.4077**

**Mobile +49 (0)151.16.548.484**

**info@caen-de.com**

**www.caen-de.com**

**CAEN Technologies, Inc.**

1 Edgewater Street - Suite 101  
Staten Island, NY 10305  
USA

**Phone +1.718.981.0401**

**Fax +1.718.556.9185**

**info@caentechnologies.com**

**www.caentechnologies.com**

**CAENspa India Private Limited**

B205, BLDG42, B Wing,  
Azad Nagar Sangam CHS,  
Mhada Layout, Azad Nagar, Andheri West  
Mumbai, Maharashtra 400053, India

**info@caen-india.in**

**www.caen-india.in**

